

REMARKS

Claims 22-30 are pending in the above-identified application. Claim 22 has been amended in order to more clearly recite that the treated solution must be subjected to two treatment steps and that the resulting product solution is the retained portion from the treatment steps. It is respectfully requested that the above changes to the claims be entered of record and considered under 37 CFR 1.116(b), since these changes do not raise significant new issues and at least place the present claims into better form for appeal, should an appeal be necessary.

Rejection under 35 USC 102(b) and 103(a)

Claims 22-26 and 28 have been rejected under 35 USC 102(b) as being anticipated by Kim '666 (US 7,441,666).

Claim 29 has been rejected under 35 USC 102(b) as being anticipated by Demmer '974 (US 6,001,974).

Claim 27 has been rejected under 35 USC 103(a) as being unpatentable over Kim '666 and further in view of Comper '236 (US 2002/0022236).

Claim 30 has been rejected under 35 USC 103(a) as being unpatentable over Demmer '974 in view of Kim '666.

These rejections are traversed based on the reasons below.

Distinctions over Cited References

Kim '666 discloses a process for producing a porous film, wherein the film is used to separate a solute and/or dispersoid from a multiple component solution. It is asserted in the Final Office Action of August 17, 2009 that the treatments steps (2) and (3) recited in present claim 22 are essentially disclosed in the example described at column 23, lines 23-55 of Kim '666. The Examiner states at the bottom of page 2 of the Final Office Action that, "...during separation at least some forms or weights of proteins are concentrated and retained by the membrane while other proteins which pass through the membrane are also concentrated and retained in some form." A review of this portion of Kim '666 indicates that albumin is removed by employing

fractionation with a molecular sieve which may be considered to correspond to treatment step (2) recited in the present claims, but not treatment step (3).

Kim '666 fails to disclose or suggest either treatment step (1) or treatment step (3) of the method of the present invention. Treatment step (1) requires that proteins be adsorbed on to a selectively hydrophobic substrate. Treatment step (3) requires that a sample solution be passed through a porous separation membrane, and that the portion of the solution that does not pass through be retained. Thus, significant patentable distinctions exist between the present invention and Kim '666, such that above-noted rejections based on this reference should be withdrawn.

In response to the Patent Examiner's assertion that Kim '666 discloses treatment step (3), it is submitted that this position is inconsistent with a proper interpretation of the present claims. That is, treatment step (2) in claim 22 requires that the "filtrate" be retained, whereas treatment step (3) requires that the "concentrate" be retained. Further, claim 22 requires that the same solution sample be subjected to at least two of the three treatment steps. Consequently, the result of treatment steps (2) and (3) is a solution product having the undesired protein component and undesired fluid removed with the desired protein component advantageously highly condensed. In contrast, the single treatment step disclosed by Kim '666 produces a solution having part of the undesired protein component removed, with both portions of the desired and undesired protein components being condensed, or a solution having the desired protein component decreased. This is because the same solution sample in Kim '666 is not subjected to a second treatment step wherein the concentrate is retained as the product. Thus, Kim '666 falls far short of disclosing or suggesting treatment steps (3) or (1) as recited in the present claims.

Comper '236 discloses a method for kidney disease detection which may employ the use of a blue dye in order to detect albumin during filtration as noted at paragraph [0085].

Comper '236 fails to make up for the deficiencies noted above with regard to Kim '666, such that the above-noted distinctions also apply. Therefore, significant patentable distinctions exist between the present invention and Comper '236, such that the above rejections based on the reference should be withdrawn.

Demmer '974 discloses an apparatus for the separation of albumin having an anion exchange membrane adsorber module 1 and a cation exchange membrane adsorber 2. That is,

both the modules 1 and 2 are ion exchange membrane adsorber modules. Both of these modules essentially correspond to module (1) of the apparatus of the presently claimed invention.

Demmer '974 fails to disclose or suggest an apparatus which includes either a module that employs fractionation with a molecular sieve or a module that is used to retain a portion of the treated solution which does not pass through a porous membrane, i.e. used to retain the "concentrate", as required by modules (2) and (3) in the apparatus of the present invention. Consequently, significant patentable distinctions exist over Demmer '974 such that the above rejections based on this reference must be withdrawn.

Further, the attempt to combine Demmer '974 with Kim '666 also fails, since both employ different treatment methods, with no suggestion in either reference to combine the disparate methods together in successive treatment steps. Therefore the rejections against both the apparatus claims 29 and 30 must be withdrawn.


It is submitted for the reasons above that the present claims define patentable subject matter such that this application should now be placed in condition for allowance.

If any questions arise in the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: November 17, 2009

Respectfully submitted,

By 

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